

REMARKS

In response to the Office Action dated May 26, 2005, claims 1-8 and 11-14 have been canceled without prejudice or disclaimer, and new claims 15-34 have been amended. No new matter has been added by way of the amendments. Reexamination and reconsideration of the claims as requested is respectfully requested.

In paragraph 2 on page 2 of the Office Action, claims 1, 6, and 13 are rejected under 35 U.S.C. § 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Applicants respectfully traverse this rejection, and have canceled the pending claims and submits new claims herewith. It is believed that all new claims comply with 35 U.S.C. § 112.

Applicants respectfully request the Examiner withdraw the rejection of claims 1, 6, and 13 under 35 U.S.C. § 112

In paragraph 2 on page 5 of the Office Action, claims 1, 2, 4, 6, 11, 13, and 14 are rejected under 35 U.S.C. §102 (e) as being anticipated by Pelc, et al. (U.S. 6,203,759). Applicants respectfully traverse this rejection.

To anticipate a claim, a reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single cited reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Therefore, all

claim elements, and their features, must be found in the cited reference to maintain a rejection based on 35 U.S.C. § 102.

Since the basic elements of previously presented claims 7 and 8 have been incorporated into the new independent claims, the subject matter of now-canceled independent claims 1 and 6 is not anticipated by Pelc, et al as also admitted by the Examiner in the Office Action on page 7, last paragraph.

Now-canceled dependent claims 2,4,11, 13 and 14 were also rejected by the Examiner under 35 U.S.C. §102(e) as being anticipated by Pelc. While the Applicant does not acquiesce to the particular rejections to these dependent claims, it is believed that these rejections are moot in view of the remarks made in connection with independent claims 1 and 6 (now canceled). These dependent claims include all of the limitations of the base claim and any intervening claims, and recite additional features which further distinguish these claims from the cited reference.

Applicants respectfully request the Examiner withdraw the rejection of claims 1, 2, 4, 6, 11, 13, and 14 under 35 U.S.C. §102 (e) as being anticipated by Pelc.

In paragraph 4 on page 7 of the Office Action, now-canceled claims 5 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Pelc, et al. Additionally, now-canceled claims 7 and 8 are rejected as being unpatentable over Pelc in view of Tajima (U.S. Patent 5,895,631). Applicant respectfully traverses this rejection.

Three criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the

prior art reference, or combination of references, must teach or suggest all the claim limitations. MPEP § 2142.

Pelc, et al. discloses a microvolume liquid handling system comprising a microdispenser, wherein a transfer liquid is taken up from a well and then is dispensed into another well again. However, Pelc, et al. fails at least to disclose, as applicants claim in new claim 1:

“A capillary apparatus for taking up a first medium present in a first phase and containing at least one molecular species, without taking up a second medium, comprising:

a pipette having a lower end;

a diaphragm located at the lower end of the pipette, the diaphragm defining at least one pore, the at least one pore having at least one diameter, and wherein at least a part of the diaphragm further comprises biological material for binding the molecules contained in the first medium as the first medium is drawn therethrough;

a pump, coupled to the pipette, for producing a reduced pressure in the pipette; and

a pump controller for controlling the pressure within the pipette, wherein the pump controller maintains the pipette pressure at a level that ensures the second medium will not be taken up.”

In other words, Pelc, et al. does not discuss taking up a first medium without taking up a second in an automated controlled fashion.

Furthermore, it should be noted that the apparatus according to Pelc, et al. does not disclose a diaphragm with at least one pore at the lower end of the pipette.

Moreover, in column 16, line 56 through column 17, line 4, Pelc discloses:

“In accordance with a still further aspect of the present invention, the pressure in the dispenser (such as in dispenser 212 of FIG. 7) is reduced as the result of reducing the system liquid reservoir (214 in FIG. 7) pressure.

The valve (242 in FIG. 7) is closed, and then the nozzle of the dispersion unit can be immersed in the transfer liquid to aspirate a small quantity of the transfer liquid into the dispenser. For example, when gauge pressure in the dispenser reaches minus 30 millibars, submersing the nozzle in the transfer liquid may draw a sufficient amount of liquid to increase the gauge pressure to minus 15 millibars. It should be noted that the dispenser does not aspirate air unless the surface tension in the nozzle is exceeded by the negative gauge pressure. In the preferred embodiment system using dimethyl sulfoxide, the negative gauge pressure to about 45 millibars does not produce air aspiration into the nozzle.”

This passage only includes a general statement with regard to a surface tension, but it fails to disclose a teaching with regard to a predetermined controlling of the pressure which is used to take up the liquid. In contrast thereto, the invention provides a controlling of the pressure which is used to take up a first medium and provides an exact controlling instruction, namely that the

“critical pressure within the pipette is determined according to the following rule:

$$P = 2 \cdot \frac{S}{r}$$

where

S denotes the surface tension which is produced by the first medium in the at least one pore when the first medium has been taken up fully by the pipette, and

r denotes the at least one radius of the at least one pore.

The skilled person does not get a hint from Pelc, et al. to provide a controller that functions according to the invention.

Furthermore, it should be mentioned that the purpose of the apparatus according to Pelc, et al. does not relate to the analysis of an analyte, but merely to the transfer of a liquid. This results in that according to Pelc, et al., there does not exist the need to an automated “empty recognition”, since it would make no harm if air was also taken up by the dispenser. In contrast thereto, according to the invention, a very easy and cheap analyte analysis apparatus to analyze biological material that may be contained in the first medium is provided, wherein it is important to have only the first medium being transferred through the membrane and then through the analysis chip for analyzing the first medium. Pelc, et al. does not provide or suggest such an apparatus and therefore fails to anticipate the invention as claimed.

Turning now to the combination of Pelc and Tajima. Pelc fails to teach or suggest all limitations of the new independent claims as discussed above. Tajima fails to cure Pelc in this regard. Tajima simply discusses channeling liquid through a chip. This, combined with the deficient disclosure of Pelc does not reach the invention as claimed.

Therefore, the subject matter of the independent claims is not obvious with respect to Pelc, et al. in view of Tajima.

Applicants respectfully request the Examiner withdraw the rejection of now-canceled 5 and 12 under 35 U.S.C. § 103(a) as being unpatentable over Pelc, as well the rejection of now-canceled claims 7 and 8 as being unpatentable over Pelc in view of Tajima.

CONCLUSION

In view of the amendments and reasons provided above, it is believed that all pending claims are in condition for allowance. The amendments clarify the patentable invention without adding new subject matter. Applicant respectfully requests favorable reconsideration and early allowance of all pending claims.

If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's attorney of record, Jeffrey R. Stone at 952 253-4130.

Respectfully submitted,

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